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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,901	09/20/2000	Vincent Liu	GIC-620	8304

7590 09/20/2004

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EXAMINER
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NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/666,901

Applicant(s)

LIU ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 13 is/are rejected.
- 7) ☒ Claim(s) 4-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2-4</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Balakrishnan (USP 5793425).

Regarding claims 1 and 13, Balakrishnan discloses an apparatus for processing a plurality of channels (Figs 1, Ref 22) in a statistical multiplexer (Fig 1, Ref 24) comprising means for allocating an encoding bit rate for coding a current picture of each channel according to a bit rate need parameters thereof (Fig 1, Ref 30 and lines 59-62); means for allocating a transmission bit rate for transmitting the current picture after encoding thereof (Fig 1, Ref 30, col. 4, lines 39-58) and providing a modeled decoder buffer that receives transmitted pictures therefrom, for each channel (Fig 2, Ref 27); wherein for each channel, the transmission bit rate is based on the channel's encoding bit rate, and is allocated following a system delay that follows the allocated encoding bit rate, to minimize a rate mismatch between an input and an output of the modeled decoder buffer (Col. 4, lines 5-37, col. 4, lines 63 to col. 5, lines 37, col. 6, line 35 to col. 8, lines 38).

Regarding claim 2, Balakrishnan discloses at least one of channels; the transmission bit rate is allowed to deviate from the channel's encoding bit rate to avoid an impending overflow or underflow event of the modeled decoder buffer (Col. 6, lines 36-65).

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Regarding claim 3, Balakrishnan discloses at least one of channels, check for impending overflow or underflow event of the modeled decoder buffer to set at least one of minimum and maximum limits on the transmission bit rates for the channel (Col. 10, lines 5-15).

***Allowable Subject Matter***

3. Claims 4-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haskell (USP 5159447) discloses a method and system for allocating the encoded bit rate based on the requested parameter and transmission bit rate based on the encoded bit rate for preventing an underflow or overflow of the buffer of decoder.

Kato (USP 6504850) discloses a method and system for allocating the encoded bit rate based on the requested parameter for preventing an underflow or overflow of the buffer of encoder.

Perkins (USP 5861919) discloses a method and system for optimizing rate of video encoders.

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Keesman (USP 5606369) discloses a method and system for allocating the encoded bit rate based on the requested parameter and transmission bit rate based on the encoded bit rate for preventing an underflow or overflow of the buffer of decoder.

Budge (USP 5708664) discloses a method and system for allocating the encoded bit rate based on the requested parameter.

Tahara (USP 6529550) discloses a method and system for allocating the encoded bit rate based on the requested parameter and transmission bit rate based on the encoded bit rate for preventing an underflow or overflow of the buffer of decoder.

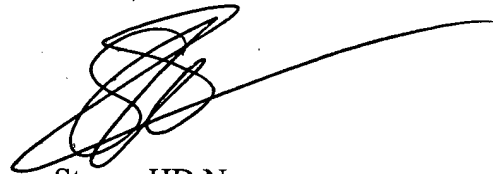
Tahara (USP 5963256) discloses a method and system for allocating the encoded bit rate based on the requested parameter and transmission bit rate based on the encoded bit rate for preventing an underflow or overflow of the buffer of decoder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Steven HD Nguyen  
Primary Examiner  
Art Unit 2665  
9/16/04